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SHOULD UNIVERSITIES ORGANIZE INSTITUTES OF POLITICAL RESEARCH ON THE PLAN OF THE MELLON INSTITUTE OF INDUSTRIAL RESEARCH?[1]

IN preparing this paper, I have had in mind the following definition of "political":

> Of, or pertaining to, polity or politics, or the conduct of government, referring in the widest application to the judicial, executive and legislative branches; of or pertaining to or incidental to the exercise of the functions vested in those charged with the conduct of government; relating to the management of affairs of state.

The question is not one of the study of political theories, but of research into problems of political practise. In this category are included not only questions of purely political import, but also problems social, industrial, financial, economic. No more extensive field for the researcher could be imagined than that which at once embraces the subjects of child labor, workmen's compensation, pensions of all sorts; housing regulations and health conditions; taxation, the tariff, currency, banking; the regulation of railroads and other corporations, control of public utilities, government ownership; direct nominations and elections, commission government, presidential primaries; conservation; international relations and international law; peace and arbitration; relations of labor and capital; efficiency in governmental administration, involving proper systems of accounting, budget-making, etc.; and other questions of equally vital importance.

These problems must be studied, and they must be solved. Of this there is no longer any question. We are all in substantial agreement that government can not be effectively administered until definite settlement has been made of these and kindred matters. So long as indecision remains regarding them, so long will there be waste and inefficiency in the operation of the body politic.

But how to reach such a solution? Through what agency shall government operate in order to give thorough and careful consideration to these problems, to suggest a remedy for each ill, and to aid in the application of that remedy? Dr. McCarthy spoke in this conference one year ago of the need for experts in "the chemistry of government." Where are these experts to be found, and in what laboratory is the research to be pursued?

It is evident that the average legislator or executive officer lacks the time and the opportunity, too often the capacity, to go to the bottom of these problems. These questions wait, not upon partisan discussion, but upon intensive study by patient and skilful workers, close enough to government to know its problems and understand their bearings, and yet far enough away from the scene of activity to be free from bias or prejudice. It is this very question of partisanship which has most hampered the bureaus of municipal research, the legislative commissions, and the other organizations formed at one time or another to deal with these several matters.

[1] An address delivered before the Second National Conference on Universities and Public Service, August 24, 1915.

All the evidence points to the university as the ideal location for such a laboratory and for such research. Here are men trained in all the different fields of knowledge; men interested in the best possible solutions of all questions of governmental policy or well-being. The life of the university is directive of local and general betterments, its attitude sympathetic to public needs. With its lectures, its bulletins, brochures and other publications, the facilities of the university are unequalled for making a study of these problems and for disseminating information regarding them. Through its affiliation with other institutions of every sort, the university is enabled to secure large assistance in work of this kind. Finally, it has already been shown that the university can make such a study, and can make it effectively and thoroughly. Several universities, either through specific research bureaus, individual fellowships, or specially qualified individual instructors, have for some years been rendering to city or to state just this type of service.

We come, then, to the question: "Should universities organize institutes of political research on the plan of the Mellon Institute?"

Let us first consider briefly the plan of organization of the Mellon Institute. For what purpose was it created, and how is it maintained?

In the system of practical cooperation inaugurated five years ago by Dr. Robert Kennedy Duncan, a corporation contributes to the institute a definite sum of money, usually for a period of two years. This money is used by the institute to pay the salaries of fellows employed to study definite problems, the solution of which is of interest to the donating corporation. The institute thus represents an alliance between science and industry. It seeks by its efforts to obviate difficulties in manufacture, in utilizing wastes, in improving and cheapening manufactured products, in finding new uses for products, and in searching for new and useful products, for American industrialists. The several fellowships of the institute to date have attacked such diverse subjects as the chemistry of bread and baking, problems related to petroleum, the corrosion of steel, the technology of soap and soap fats, bleaching of animal and vegetable oils, problems related to the manufacture of foods, the development of steam power accessories, problems of hydro-metallurgy, the technology of glass, the production of fertilizers, the utilization of mineral wastes, and the problem of smoke in its relation to Pittsburgh, with a study of the economic, sociological, psychological and other aspects of the question.

What are the lessons taught by the Mellon Institute which would find application in the question of training for public service? Most obvious, of course, is the great public benefit to be derived from the successful solution of any of these questions—this, even though the direct return is to the corporation establishing the fellowship. Every step taken in the direction of the elimination of waste, of improvement in the methods of manufacture, means so much real public gain.

The meaning of this statement is made more clear by the additional fact that already, through several hundred publications made by the fellows of the Mellon Institute, dealing with various scientific subjects brought up in the course of the several researches, a vast contribution has been made to scholarship and to knowledge. The results of the researches are made known to the public after a period of three years, with the consent of the donating corporation. For this reason these papers deal only

generally with the subject of the research; but the facts made known are none the less valuable and important.

Another source of profit from the operation of the institute is found in the school of specific industries, operated in connection with the institute. This school, which is not yet in full operation, provides for the training of young men in the knowledge and ideals of research, giving them a proper background for such study, and fitting them to undertake, after graduation, the work of fellows in the institute.

But most important of all, for the purposes of this paper, is the fact that because of the institute's scheme of organization and operation it has been demonstrated how problems of this sort, attacked in the proper way, under proper conditions as to laboratory, materials, expert advice, etc., by well-trained and earnest researchers, may be made to yield results which are of real and lasting public good. Herein we find the greatest measure of encouragement for proceeding with the study of political problems under like conditions and with similar facilities.

Nevertheless, the situation in the political field is not exactly analogous to that in the sphere of industrial research. The industrial fellowship system presupposes two things: first, the existence of industrial concerns with unsolved problems of a technical nature; and second, potential knowledge on the part of the fellows as to methods of solving these problems. In the university, the seat of special knowledge, the industrialists and scientists are brought together. Because of the lack of inclination on the part of the industrialists to take scientists into their employment, or when they do, to use the scientists to the best possible advantage, the university has offered a direct subsidy to industry on behalf of research, providing for the use of the industrialists facilities which could not be had in the ordinary individual plant. The corporation is asked merely to pay the salaries of the men who undertake the work of the fellowship; the university furnishes a well-equipped laboratory, supplies, apparatus, advice, library and consultative facilities. Finally, the results become the patented private property of the corporation. There is a growing tendency on the part of the industrialists to publish the results of these investigations, at the end of a two- or three-year period, as a means of promoting cooperation and improving methods of manufacture in the industry; and such publication is made unless the donor can show cause why it should not be made. We see, then, that the first return from this system of industrial research is to the individual. The public has received enormous profit from the system, and will continue to do so; but this is made possible only because the plan has been such as to appeal to individual corporations.

Political research, however, would deal with another set of conditions. In this field, the principal interest to be served would be that of the public welfare. The community, rather than the individual, would receive a direct return from the solution of any or all of these problems. Full publicity would be a prime necessity, and secrecy of no advantage whatever to the researchers, since the results of the research would have no particular monetary value to individuals or corporations. It is just this fact which would prevent the system from receiving large financial support from such concerns.

Again, political research requires no special building or elaborate equipment, as is the case with industrial research. Most of the work connected with such research must be done in the field; it requires intense

activity, but there is no need of extensive laboratory and office equipment.

There is in my mind a question as to whether the detailed and constant supervision which is a feature of the industrial system would be a necessary part of the plan of political research. It is probably true, however, that we must require for the work of research specialists as highly trained in this department as are the holders of the industrial fellowships in their line of work. The time has passed when we can rely upon the untrained man to preside properly over the state. Expert knowledge, based upon a searching study of the facts, principles and phenomena in question, is as essential to sound solutions of the problems of government as it is in any other business. The industrial research fellow may expect to enter the employ of the industrialist at a good salary if his research proves successful. Service with the city or state, though not offering as large financial rewards, perhaps, should prove attractive as a future for the young civic research fellow.

The constant element, we then discover, is the university with its special knowledge. Political research, because of the difference in its elements as contrasted with industrial research, requires for its proper development a system adapted to its own particular needs.

Is it not the function of the state to provide in the university facilities for such research, giving it adequate financial support? The problems are not problems of the individual, but of the community, of the state, and of the nation. In the industrial fellowship, the first concern is to the individual; the indirect return is to the public at large. Lacking this element of personal gain, we have seen that the system of political research could not rely upon private capital for maintenance. It might be possible in isolated instances to establish institutes of political research, securing from individuals or corporations sufficient financial backing for proper maintenance. But this would be at best a dubious undertaking; and the end in view is too vital to the public interest to be exposed to any hazard.

A further consideration is the question of political neutrality, already referred to. Would a system of political research, founded and maintained by private capital, find the results of its investigations attended with the proper degree of consideration by the public? Is not the element of non-partisanship one of the most essential in such a system; and would this be preserved in any but an organization serving the state and responsible to the state?

I sum up my findings as follows:

First: There is vital need of such a system of research.

Second: This research should be carried on within the university, because of the peculiar advantages inherent there.

Third: The university in this work should be supported by, and should be responsible to, the state.

S. B. McCormick
Chancellor of the University of Pittsburgh

THE STATE UNIVERSITY ALUMNI AND THE STATE[1]

The alumni of any college mirror the spirit of the faculty. If the consuming interest of the faculty be dogma, the alumni are sure to be but meagerly interested in civics. If the faculty be interested in the technicalities of sciences and the research avenues of laboratories, the alumni will not, as a body, be keen about organized philanthropy. But

[1] Address delivered at the Second National Conference on Universities and Public Service, Boston, August 25, 1915.

the college that is created by the people for the purpose, as the colonial conferees of Vermont declared when they created the University of the Green Mountain commonwealth, "to render the state respectable," is sure to have, if its faculty be true to its trust, the spirit of the commonwealth behind it, an eagerness "to render the state respectable." And therefore the alumni of that institution, cosmopolitan as it is in character, composed of men and women, students of science, law and literature, is much more disposed to make its philosophy philanthropic and to dedicate its arts or science training to civic purposes than is the college alumni that is built upon the foundation of predatory philanthropy or the beneficence of a conference that through the creation of a college hall hopes to spread a particular brand of dogma.

If you will look at the statistical records of the student population of the forty-five state universities of America for the last twenty-five years and compare them with the enrollment of the forty-five largest corporation and conference colleges in America you will find that the state universities have already won the race, and the boys who once came from the prairies of the great central valley of this continent to Harvard and Yale and the ivy-grown walls of such cozy colleges as Bowdoin, Amherst and Williams are now going to the commonwealth colleges of Michigan, Wisconsin, Minnesota, Illinois and the rest. Yet the state that toys most with the word "commonwealth" is Massachusetts and you've hitched your word "commonwealth" up to an avenue of aristocracy. Notwithstanding the noble history behind you, you haven't yet started on the road to a perfected democracy, nor will you until you flood your state with an alumni that is saturated with the spirit of a college that is created by democracy, maintained by democracy and dedicated to the noble service of conserving and purifying democracy.

These state universities are encouraging and purifying democracy. Wherever these state colleges are the victims of political intrigue the very weapon that has been used to curb their speech goes forth and in the end of its course strikes like a boomerang the offender who hurled it. Moreover, the state university is a pulling power that lifts the state up by its own bootstraps. You will find a larger percentage of population in schools in Kansas or Nebraska, Oklahoma or Texas, Tennessee, Indiana or Montana, Maine or California which have state universities, beckoning to the youth of the state to climb, than you will find in Massachusetts, Connecticut or Rhode Island with all their elm-shaded, ancient colleges.

It was but little more than a quarter of a century ago that the state of Maine was without a state university and then about 15 per cent. of the population of the state was enrolled in the schools of the state, public and private. At that time about 16 per cent. of the population of Massachusetts was attending school. To-day, Maine has a state university and Massachusetts is without one; Maine has over 25 per cent. of its population in schools to-day and Massachusetts has still approximately 16 per cent.

Year after year the organized alumni of Bowdoin and Colby went to the legislature of Maine and asked the men who were delegated by the people to build the commonwealth, to slight the institution that, in the accumulation of years, is destined to strengthen, glorify and purify the commonwealth. But the tide of alumni from Orono soon grew too strong, and the resistance was forced to yield. So we see concrete evidences of what a state university's

alumni can do for the state. They can at least build up the institution that lifts up the literacy of the state. And when the state itself raises its literacy, it raises respect for and pride in citizenship and stamps citizenship with a sense of a soldier's service.

Education is an intangible thing. Its dividends are not easily determined. Its assets and liabilities can not be ledger-kept. But more and more, every student of government is beginning to recognize the fact that where commonwealth colleges are not, individual wealth against common wealth is the aspiration of most of our cultivated and cultured folks, whereas where the states have had time to develop a people's university and spread among the people the products of that university the thought of service to the people takes root and builds that which will be of benefit to the greatest common denominator. These are the colleges that, as democracy develops in government, find increasing favor in our legislative chambers and find permanent place upon our statute books.

So great is this intangible but constructive force of commonwealth building that even in Wisconsin, where I live, a governor who before election declared that the University of Wisconsin had long enough been surveying big business and that now big business was going to survey the university, was unable even with a friendly legislature, to curtail or cripple that university, notwithstanding the fact that the faculty of that great university was conspicuously absent through the battle, and the alumni indifferently organized and directed. But the spirit of the institution and the accumulation of its years of labor had so saturated the people that a reactionary political faction advanced to power did not dare strike it a hurtful blow.

So much for what the alumni of a people's university, consciously or unconsciously, do for their state. As to what they can do, the avenues of usefulness are infinite.

In Illinois this last year the legislature was overtaken with one of these retrenchment epidemics and decided, for the sake of political expediency, that the state might run along for a couple of years like a goat pasture rather than the seat of civilization. So they decided to take it out on the University of Illinois. But President James touched a button and the alumni rose in every "Middlesex village and farm," like an army mobilized in the night, and to the legislature of Illinois there suddenly came a revelation. They decided—not to take it out on the University of Illinois, but to let the cultural forces of the commonwealth go marching triumphantly on. They were made to see that which the Father of his Country so clearly saw and to which he gave the undivided enthusiasm of his last years when he pleaded and labored for a national university, declaring that "it is only by educating the people, by the people, that a nation of free men can be made permanent."

With each succeeding year the alumni of the state universities are beginning to see more clearly how little they are investing their potential power. The state universities as compared with such a university as Harvard are still young. Notwithstanding this fact European educators will tell you that the University of Wisconsin shares with Harvard a reputation for academic efficiency though one half of the alumni of the University of Wisconsin has been graduated within the last ten years.

The rapid growth of the commonwealth college has been unparalleled in pedagogic history. Because it is the child of democracy and essential to the conservation of democracy its power has spread with

prairie-fire rapidity. Measure its accumulative power in terms of a century rather than a decade and you will but begin to guess its influence in spiritualizing and humanizing the civic and political forces of the nation. But we are often told that, however nobly the state university conceived itself along the line of civic and political developments, however efficiently it works for scientific advancement and the promotion of humanitarian measures, it still is an un-Godly institution because it does not and can not in the spirit of religious liberty teach religion which is fundamental and essential to the needs of the human soul.

This imputation I deny. And this need is one which the alumni for the university can and will fulfill.

It has been the habit of corporation and conference college trustees to elect not the most inspirational man for college president, but to elect the best "beggar." If you will check up on the activities of the presidents of most of our endowed colleges you will find they spend most of their time running around conferring and hobnobbing with Magnate Moneybags and Widow Leftalot, urging them to serve their God by giving to the colleges which are left stranded, dependent on the charities of people who often have to hurl a hospital in one city and a university in another to stem the tide of protest against their corrupt commercial conduct. It is in these colleges, they tell us, that the students get their education in religion. It is these colleges they call "Godly."

The alumni of the state universities are just beginning to study ways and means of giving tangible expression to their love and loyalty for their alma mater, and to the ideals of democracy she fosters. The alumni of Michigan have already determined to erect a million-dollar Union in which there will be a great fellowship hall for fraternal mixing, where the alumni returning to their college may find club house facilities and feel themselves "at home." A commendable convenience and a worthy idea.

But first I would see the organized alumni of every people's college build a great Commonwealth Chamber, dedicated to the religion of service and to the dogma of democracy. I should make it big enough to accommodate not only the thousands of matriculated students who could gather therein in inspirational convocation, but I should make it the obvious open chamber of service to which would come every kind of a state convention, be it political, religious, fraternal or commercial, and let whatever body of men or branch of society that sought to use it feel the spirit of democracy which would be the very atmosphere of the chamber.

In that chamber I would place a noble organ and there, not under the direction of the university but under the direction of the alumni, I would teach religion by teaching the religious liberty for which our forefathers fought and of which we proudly boast.

Your denominational college, built and maintained by the Episcopal church, teaches but one religion and that the religion founded by an English king. Your Catholic college teaches the religion of Rome. Your Presbyterian college teaches the dogmas of Calvin. Your Methodist college the theology of Wesley. And so on, through the list. The youth who comes forth from those college walls knows not the inspiring history that stands back of all the spires that he sees pointing to the heavens above. He has been taught the story that stands back of but one spire. And that is not education in religion.

In the northwest corner of this beautiful

country stands a wonderful mountain that I love. Because of a cheap real-estate war between the youthful cities of Seattle and Tacoma this mountain is named on your map, Rainier. Even the Daughters of the American Revolution became ashamed of themselves when they found they had a Rainier chapter in their order. And they finally changed it to the Seattle chapter. Would that their patriotic zeal might go still farther and insist that Congress change that name, because Rainier was a British admiral who never saw that beautiful mountain, and never visited our shores but once and then to sink an American battleship in our infant navy when we were fighting for our political freedom in the Revolutionary War. Rather would I call that beautiful mountain Tacoma, the aboriginal name which so graphically interprets its rare symmetrical beauty and its impartial service to all the people in all the country round about. For Tacoma was the Indian name for "Mother Breast that Feeds the Country."

I like to liken that mountain to the spirit of Christianity in service. Its defiles of everlasting snow feed this stream that flows through these meadows, and keeps green and fertile these pastures which we may call the Methodist grazing ground. And over here the same snows from heaven feed a Congregational stream that also flows through and keeps green the Congregational pastures. And over there we find the Episcopalian stream feeding the Episcopalian ground, and then again the Catholic stream, even unto the clear trickling brook of Unitarianism. They are waters that flow in different ways and they all do their blessed good. But no man knows more than mere dogma who does not get above the running water of the individual stream, who does not get up into the glacial heights and even above that to the very crown of white. There he will find the impartial spiritual source of Christianity, fed from the canopy of heaven itself into the denominational pastures below. Nor does the religious lesson of the mountain end with the picture of our beautiful Tacoma.

Across the sea we find Fujiyama, snow-capped like Tacoma, which in its turn makes green the pastures where walk the children who bow before the altar of Buddha. And further away on the dividing line of Hindustan and China we find Mt. Everest which comes nearest to reaching the floors of heaven. And the same God that blanketed Tacoma with the pure white spirit of Christianity, and laid upon Fujiyama the symbol of Buddha's love, laid there another field of purity that its waters to the south might flow to bless those who love Buddha, and its waters that flow to the north may comfort his children who love Confucius.

We know not the story of the spires, the history of altars, nor do we know the religion of the applied pieties, the religion of service, the religion of the all-loving God until we have reached the mountain top and seen from peak to peak. Religious liberty does not mean religious ignorance, nor that we as a people should ignore religion. So in the great Commonwealth Chamber which I would have the alumni of the people's college build, I would have the alumni, the people themselves, invite the Church of Rome to send to the altar of the commonwealth the ablest scholar they possess to tell the students who are going forth to lead the state why they should all come to the Catholic faith. And on the Sunday following I would have the alumni ask the Methodist church to send its ablest scholar to tell those students why they should be disciples of Wesley. And the Presbyterians would send their ablest teacher to tell the students why they should be Calvin's

devotees. And the Episcopal church would be asked to plead its case before the students. The Congregationalists and the Lutherans with all their divisions and the Christian Scientists and all religious branches that would accept the invitation to fill the people's pulpit once a year should be allowed to do so, Jew or Gentile. Let us have the story of Socrates and Zoroaster, Buddha and Confucius along with all the divided interpretations of the Christ. Then indeed would you have religious education, taught in the American spirit of religious liberty, linked with the spirit of the religion of service.

The alumni of the commonwealth college should work for a patriotism that is endowed with a religious sanctity and a purpose pledged to the promotion of the humanities not here nor there but everywhere over the whole wide, round world.

The university that tries to teach the arts and sciences, letters and law in the terms and spirit of democracy, that is endowed with the cosmopolitan, universal spirit of religious liberty and whose alumni has been inspired with the religion of service to mankind is Godly—most Godly. And that is the university that will send forth into the world workers who will work not only for the glory of one state, but for all states, who will honor not one country, but all countries and who will love not one man or class of men but all men.

RICHARD LLOYD JONES

THE WORK OF THE ALUMNI ASSOCIATION OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY[1]

I HAVE been asked to speak to you a few moments on the work of the Alumni Association of the Massachusetts Institute of Technology and I do so with much pleasure because I believe the work of the alumni of Technology represents a new and rapidly growing factor of importance in the field of education and in the development of our social and industrial life.

Every college and university in this country, as well as every large technical school, has, of course, its alumni association; but, as a rule, these associations are little more than organizations designed to promote the welfare of their members and unite them by the bonds of social intercourse. It is usual for such associations to hold one meeting each year, to publish a periodical of interest to its members and in certain instances, when duly authorized, to elect by ballot or otherwise representatives to the governing body of the college or university with which it is allied. The Alumni Association of Technology, however, does not confine its activities to this narrow field. While retaining its function of ministering to the social and material wants of its members, it aims primarily to aid in the development of the institute in the broadest sense of the term.

The control of the Massachusetts Institute of Technology is vested in a self-perpetuating corporation consisting of fifty-three men, thirty-five of whom are chosen at large by reason of their high standing in the community and their special interest in the kind of education which Technology strives to give; three others—the Governor, the Chief Justice of the Supreme Court and the Commissioner of Education of the State—are ex-officio members of this body and the remaining fifteen are nominated for term membership by the alumni. This corporation, working largely through its executive committee of seven, controls the policies of the institute and wisely directs their execution. Appointed by the corporation is the faculty and instructing staff, whose

[1] An address delivered before the Second National Conference on Universities and Public Service, State House, Boston, Mass., August 25, 1915.

primary duty is to furnish instruction to the undergraduates and to conduct and direct the great mass of research work in the realms of pure and applied science that is continually adding to our store of knowledge. Officially, therefore, the government of the institute rests with the corporation and faculty, but unofficially another group exercises an influence which can not be disregarded. The alumni, through their activity and the moral force of their joint opinion, have become within the past few years a factor of real and constantly increasing importance in Technology affairs.

And the alumni, as a body, are peculiarly well fitted for their self-chosen work. No other large group of men has been so intimately connected with the development of the institute for a considerable length of time. No other body by training and experience is better able to understand the difficulties of the institute's problems and no other group has the interests of the institute more closely at heart. The association, therefore, is in a position to act towards the institute as a kindly critic, to offer advice and suggestion without fear that its motives will be questioned and to render material assistance at times of critical need. It does not attempt and does not desire to encroach upon the prerogatives of the corporation and faculty, but it does aim to lighten their labors and to stimulate them to progressive action in keeping with the times. Moreover, because of their great numbers and the diversity of their interests, the alumni are able to recognize not only the institute's needs, but the needs of the community as a whole, and, knowing these needs and the ability of the institute to supply them, and knowing, too, the benefits to result, both to the institute and to the community through mutual service, they are in a position to suggest means of cooperation at once practical and wise.

To carry on its work the alumni of Technology have perfected an organization especially adapted to its needs. An association has been formed with the usual officers, a president, vice-presidents, a secretary-treasurer and an executive committee, elected each year by vote of the members who, at the same time, name three representatives to serve as term members of the corporation. Subsidiary to the general organization are some forty-five local societies, scattered through the various centers of this and other countries—from Montreal on the north to Manila on the south, and from Portland, Maine, to Portland, Oregon—all tied together and to the central association by a field manager whose duty is to act as a connecting link between the institute and the men who have left her doors. Obviously it would be impossible for an organization so widely scattered to act effectively as individuals on matters requiring deliberative and executive action and, consequently, there has been organized what is known as the alumni council, made up of one representative of each of the classes that have graduated and one from each of the local societies with a few additional men chosen at large. This council, being a volunteer organization, unrecognized officially by the corporation and faculty, has no power except that which comes to it through the realization that it represents in every important sense, both geographically and from the standpoint of age, the views of the alumni as a whole—but this is a very real power, not easily overestimated.

At its monthly meetings the council considers matters connected with every branch of institute activity. Thus, for instance, when some years ago, the finances of the institute were in a somewhat precarious condition, the alumni council took the initiative in organizing and carrying to suc-

cess a great campaign to obtain from the commonwealth of Massachusetts a grant of $1,000,000 and later raised by subscription from the alumni an additional $500,000. On another occasion the council studied the question of establishing a summer school of surveying and, upon the approval of its report by the corporation, alumni furnished the money that made this school possible. Later still, when the institute determined to move to a new site, a committee of the alumni council began to consider broadly the question of student-housing and rendered a report which, perhaps, is the most complete treatise on this subject ever issued in this country—one being used not only by Technology but by other institutions as well. The council also made studies of the design and arrangement of the Walker Memorial, the great building which is to be not only a memorial to a former president of the institute, but the center of all student activities, and included in this study plans for the new gymnasium and athletic field.

Other activities have to do more directly with the student body. Thus, the alumni, through its committees, acts in an advisory capacity toward the various undergraduate activities, at the same time establishing between the younger and older men a relationship which has proved of value to both. Other investigations have concerned the curriculum of the institute. The council recommended, for instance, the establishment of a course in "aeronautics" and of another in "engineering administration," both of which have since been adopted with conspicuous success. The latter course, "engineering administration," has not only opened a new field of training for men who expect to enter positions concerned with the management or administration of manufacturing, construction and transportation enterprises, but has also tended to broaden the older courses of the institute by making it possible for a student to include in his engineering course, or supplementary thereto, studies in the methods and laws of business and in political and social economics.

The matters already mentioned have had to do with the internal structure of the institute, but the council has not confined itself to this field. Realizing that the institute could not achieve its greatest measure of influence unless its facilities, in men and machinery, were brought within the reach of all the people of the state and believing further that the state itself, as well as the various municipalities, towns and industries of the state, would likewise benefit from a closer relationship with the institute, it has studied the problem of organized cooperation and presented a concrete plan. The report of the committee appointed to do this work is one of the striking achievements of the Alumni Association of Technology and indicates forcibly the peculiar advantages possessed by such an association when approaching the study of a public question. From the thousands who make up the association it was possible to choose a committee composed of men eminent in their respective fields who, by their training, experience and special interests, were able to view the problem to be studied from various angles and so render a report which would command the respect of all branches of the community from the officials of the state to the common laborer. Such men, animated by public spirit and loyalty to their alma mater, willingly laid aside their many duties for the privilege of studying a problem of vital interest to Technology and to the people of Massachusetts.

The report rendered by this committee is so indicative of the character of the work done by the alumni of Technology

and so closely allied to the aims of this Society as to call for special mention at this time. After pointing out that the institute, from its inception, was intended to serve the scientific needs of the state and its people, the report proceeds to enumerate, with considerable detail, the past fulfillment by the institute of its state functions. The present needs of the state for adequate scientific aid is then reviewed and the experience of other localities cited to prove that official alliance between the state and its scientific institutions alone meets the needs of the modern progressive community. In presenting this matter, however, it points out that the problem of Massachusetts is distinctly different from that of the states of the middle west, where a comparative paucity of trained scientific men has compelled the states to organize and make official use of such scientific material as was available. It likens conditions in Massachusetts to those existing in Germany in 1870, where, in a densely populated manufacturing country amply supplied with educational facilities, but disrupted by war, a system of cooperation between the state and its scientific institutions was made compulsory, with benefits of immense importance to the community and an extraordinary industrial development resulting therefrom. At a later stage the report discusses the ability of the institute to supply the scientific needs of the state and enumerates with some detail the engineering laboratories of Technology, its libraries, the character of the men who compose its faculty and instructing staff and its admirable student body of some 1,700 men unexcelled in ability, in training, in earnestness of purpose and eagerness for work. It then presents an outline of the organization of the state of Massachusetts, and by pointing out the available field of cooperation shows the many ways in which the state might benefit through the application of the equipment of the institute, in men and machinery, to the solution of its problems.

Finally, it makes four definite recommendations:

First: That legislation be asked for, which shall increase and regularize the service of members of the faculty of the institute (and other institutions to be specified in the Act) on state boards and commissions, either as members or in an advisory capacity.

Second: That the use of the laboratories and shops of the institute be placed, without charge, at the service of the state, under appropriate conditions, which will safeguard the educational purpose of the institute and the administrative needs of the state.

Third: That there be established a bureau of technical information, which shall, without charge, furnish to the state and the public, advice which may be obtained without substantial expense, either in furnishing ordinary scientific information or indicating the lines of inquiry to be pursued.

Fourth: That the Governor appoint a permanent committee on cooperation to carry into effect the foregoing recommendations, to study further the needs of the state as to closer cooperation between the state and the institute and additional means of making such cooperation effective —this committee to act in cooperation with a similar committee to be named by the president of the institute. It further observes that there is every reason to look forward to a system of cooperation, not only between the institute and the state, but between the state and the various other available educational institutions of Massachusetts, and the machinery suggested has all the necessary flexibility to allow such other institutions, as they may become in-

tegrated into the scheme from time to time, to appoint similar committees on cooperation and to act with the state committee and the committees of the other institutions.

To quote from the report:

> The various institutions of the state thus harnessed to the state's interest will constitute a great state university. Geographically diversified, their momentum of valuable tradition, their strength of long years of experience, their stability, their equipment, their moral influence through their great alumni bodies, all render these institutions units which, if assembled by a wise state policy, will form that coordinated system of educational facilities, which in its broadest sense, is a university.

This plan goes to the very root of the prosperity of the state. It affects every city, town and country district in the commonwealth. It should receive the serious consideration of every citizen of Massachusetts who has the interests of his state at heart.

Already the work of this committee has begun to bear fruit. The various educational institutions of Massachusetts, through their presidents, have formed what is known as the university council of Massachusetts and a committee of this council, with the president of Technology as chairman, has presented definite recommendations with reference to organized cooperation with the commonwealth closely in line with the recommendations of the alumni report.

I have tried in these few words to indicate something of the character and importance of the work of the Alumni Association of the Massachusetts Institute of Technology. Much more might be said. The association is a virile, vibrant body, intensely loyal to the institute and eager to serve her in every possible way. As such it is a new factor in the field of education—a vital, active force in the development of this community—one which has received the compliment of having been copied, in its organization and aims, by the alumni of other universities.

What has the work of the alumni of Technology to do with "training for public service"? Very little directly, perhaps, but indirectly, by attempting to bring the educational institutions of Massachusetts into closer relationship with the state, it has done its share to provide the state with the trained public servants it so urgently requires. Through cooperation duplication of effort is minimized, the educational institutions are broadened by closer contact with the so-called practical world and the public is benefited in a multitude of ways. It is to be hoped that the day is not far distant when some such system of organized cooperation as has been outlined by the alumni of Technology, may become in Massachusetts, as well as in other states, an accomplished fact.

JASPER WHITING

HOW CAN CLASS GIFTS TO UNIVERSITIES BE MADE TO EMPHASIZE THE SOCIAL FUNCTION OF THE UNIVERSITY AND TO STIMULATE TRAINING FOR PUBLIC SERVICE?[1]

I ONCE heard of an elderly school mistress who resigned her position and took a job as a waitress in a restaurant. She explained it by saying that she had spent a lifetime trying to give people what they didn't want, and she did long for the delight of spending a few years in giving people things they wanted. It strikes me that this story is not without application to the situation which we are discussing.

Must we not accept as fundamental to

[1] An address delivered before the Second National Conference on Universities and Public Service, August 25, 1915.

the whole situation the fact that the people, or at any rate the people as represented by members of Congress and the Legislatures and other public officers, do not want a trained expert public service? It is a good thing to talk about. It sounds well in a speech. But one does not go very far before one touches things which are more or less in the realm of politics. A legislator does not in the least desire to have matters which involve the wishes (and votes) of his constituents and the financial welfare of some of them put into the hands of an expert who will consider the problems as questions of transportation, engineering, or what not, without the slightest concern for the profits of contractors, the desires of voters, or the political interests of the Representative from the 999th district.

The practical gentlemen, who, to adapt Thomas B. Reed's famous saying, will be statesmen after they are dead, have no intention at present of allowing the public service and the expenditure of public money to be controlled by a lot of unpractical college persons or scientific gentlemen who may be highly educated but do not know how to take care of the party.

It is quite true that the privately endowed colleges have only recently waked up to the fact that they owe a service to the state, and it is doubtful if any even of the state universities have come to realize fully the extent of their possibilities in this direction. In view of the non-receptive attitude of the public, or at least of its official representatives, and in view also of the experiences which the University of Wisconsin is now going through in its own state, it is not surprising that the universities have been backward in this matter.

Everybody knows what a farce "expert" testimony often is in legal proceedings, especially in criminal cases. Who ever heard of a board of scientific men of the very highest standing being retained as the scientific advisers of the courts of the state for the sole purpose of establishing the scientific facts in all cases where such information might be needed? Who can imagine the people of any state, in the present stage of American civilization, consenting to such a system? "Experts" are not hired to advise the court: they are hired to influence the jury. The great scholars who gather around our universities would be glad to advise the state, to furnish the brains and science needed for its various boards and commissions, but as soon as such public service begins to be really effective the cry is raised that the university is running the state and the government is being taken out of the hands of the people. The result, if the university is publicly supported, is a cutting off of appropriations, if it is privately endowed a storm of abuse of the meddling of unpractical school teachers which soon sends the aforesaid school teachers, who are usually self-respecting folk, hurrying back to their class rooms. When reproached for lack of sense of public obligation and lack of contribution to the public service the university has plenty of excuse for replying in the words of the old song, "Nobody asked me, Sir," she said.

Why again should the undergraduate desire to prepare himself for a profession which does not exist?

There is not the slightest doubt that large numbers of the best men in our universities would prepare themselves for public service if public service could be made a profession. Unfortunately, a great many of our people have a constitutional fear of an official class either civil or military. A great many more of them have lazily accepted the American idea that any in-

telligent man can do anything excepting practise law and medicine, but not excepting making laws and serving on boards of health.

I remember once incurring the undying hatred of a friend of mine who was editing with average ability a weekly paper in a suburban city (not in Massachusetts) because I would not support him in his candidacy for the superintendency of schools, although to the best of my knowledge and belief his sole acquaintance with schools was made from the wrong end of the teacher's ferule.

How many public officers, even in charge of highly technical branches of the public service, are chosen with an eye single to their knowledge of the business to be directed? The business of diplomacy, for instance, is one of the most technical and difficult in existence, and requires for its successful discharge a special temperament and, ordinarily, a special experience. The diplomacy of the United States is supposed to be centered in the person of the Secretary of State. The secretaries of state within my memory have only too often been successful political managers, able party leaders or brilliant political orators. In many cases their acts gave no evidence that they knew whether an ultimatum is a temperance beverage or new brand of automobile, and proved that they were blissfully ignorant that it is *always* loaded. If they turned out otherwise it might generally be regarded as an evidence of the special Providence which is said to guard children and fools.

But why should we be surprised that the people believe that men can do things without learning how, when I have myself, in this very building, heard the official representatives of colleges of high standing say that in their opinion a college graduate did not need to study pedagogy in order to be a perfectly good teacher?

This may seem to be wandering from my subject, but it appears to me that we can not intelligently discuss methods until we are pretty well settled as to the precise nature of the problem we are to tackle.

The difficulty primary to the whole matter is the lack of popular appreciation of the need of a trained public service. When that appreciation exists there will be no difficulty in getting from the universities direct cooperation through the use of their faculties and facilities and indirect cooperation through the training of men.

There will be no difficulty in finding numbers of young men ready and eager to be trained, when there is something worth while to train for. When we have a diplomatic and consular service which offers a life career, when service of the state and city means a life work, with a chance of growth and an opportunity to do things worth while, quite independent of the changing winds of local politics, in a word, when we have a real public service, the best youth of the country will be eager to give their lives to it.

Now, specifically, what can be done through class gifts to secure these ends? Class gifts, of course, vary in size from a few hundred dollars to many thousands of dollars. Fortunately there are things which can be done on a varied scale of expense and along a wide range of activity. I can not help thinking that for many years to come the most important problem and the one perhaps the most difficult for the college to solve is that of conducting a propaganda in favor of a trained public service among the people generally.

A class contributing a considerable amount of money to a large university might provide for the support of a journal

for the discussion of this problem. Such a journal might be published monthly, quarterly or even annually, and might obtain considerable circulation, especially if there were provision for a large free list. The matter contained in such a publication might consist of a presentation of the actual facts concerning the advantages reaped in various localities by the change from the old custom of political service to the modern one of expert service.

It might discuss the value of expert knowledge in the wide field of public service. It might endeavor to show trustees and regents that when they pay a professor the salary of a first-class mechanic they do not buy him body and soul. It might endeavor to show the people how their interests might be served and their money saved by a wise and scientifically directed expenditure of the public funds.

Another thing which might be done with a large gift would be the establishment of professorships or other teaching facilities in the college. These might run down to lectureships which could be maintained upon a comparatively small endowment. These departments of instruction should be quite specific and the instructors should be allowed a considerable range of activity, even activity involving prolonged absence from college. The purpose of such departments would be not simply to teach a group of students, but to teach the people generally through the research and publications of the department and through an object lesson of actual work on the part of the instructor.

I have in mind such professorships as that of public health. The magnificent work done by Dr. Strong in the salvation of a whole nation from a dreadful disease shows what can be done when medical science is applied to the problems of public health or might be used to show the people the necessity of having the public health in thoroughly trained hands.

A professorship of city administration making its studies, publishing the results of its researches, and opening the eyes of the people to the possibilities of a properly managed city would be of incalculable value.

Our cities are the weak point in our American system. Their weakness comes very largely from the failure of the popular mind to grasp the idea that city administration is a science and ought to be a profession. The man who would hoot derisively at the idea of putting the butcher, the baker, or the candlestick maker in charge of a railroad or a cotton mill will vote with enthusiasm to make him mayor, alderman, or member of the school board if he bears the right party label and can swing a sufficient number of votes. A good friend of mine was once offered a nomination as alderman in the old days when the candidates' names appeared on the Australian ballot in alphabetical order, for the avowed reason that his name, being one which would inevitably appear at the head of the list, was worth at least 5,000 extra votes.

A professorship of municipal finance and accounting would, in the same way, be of enormous value. The variety and inefficiency of the methods of accounting used in municipal plants is astounding. That municipal accounting is dishonest is not claimed, but that it is sufficiently ineffective to defeat many of its own ends is, I believe, the opinion of most accountants who are familiar with the facts. For example, I question very much whether the accounts of municipal transportation, water supply, lighting, and other services are kept in such a way that any one really knows whether they are conducted at a profit or at a loss. It is perfectly possible so to

separate these accounts from other accounts and so to distribute overhead charges of one sort and another that the accounts of the several departments can be made as accurate and illuminating as those of a private concern.

I question whether this is often if ever done.

The planning of a city, the administration of public education (be it remembered, a good teacher may be a very poor superintendent), and many other subjects might be made departments of instruction more or less fully developed which would be of enormous service and could be provided for by class gifts, the development of the department being in proportion to the size of the gift.

Another class of gifts, running smaller in amount than those just indicated, might be used for the provision of fellowships, traveling scholarships, scholarships for post-graduate research, or even undergraduate scholarships, to be given to men working in these departments.

A moderate gift would endow a prize essay competition and if it were a little larger would provide for the publication and circulation of the prize-winning essays.

Another gift might provide for the foundation of a lectureship, or even one or two lectures a year, which might be either of an inspirational or missionary nature, or strictly didactic.

A moderate gift might provide for the purchase of books, charts and the like for the library or for the department of economics.

Time forbids further discussion of details, but I trust that enough has been said to show that there is here a great field in which classes may at once serve their college, the young men who are coming after them, and the state which is the Mother of us all.

FREDERICK W. HAMILTON

AN INSTITUTE OF POLITICAL AND ADMINISTRATIVE RESEARCH

THE war remains our central interest. Almost everything else is placed aside or pigeon-holed for a more opportune time. There is one thing though that the war has not subordinated, namely, the demand for efficiency. It has emphasized and increased it, rather. Efficiency in business, we are told, is imperative, and a pork-barrel inefficient government must mend its way.

Business is gradually becoming more efficient. Agencies are being created to promote business efficiency. Even our educational institutions have responded to this need. New York University, Dartmouth, Chicago, Pennsylvania, Illinois and others, have schools of business, accounts and finance. Other colleges and universities have more or less developed organizations for similar training. Harvard has a graduate school of business administration. Harvard establishes a very useful bureau of business research. Bureaus of chemical and industrial research are being organized under commercial auspices all over the country. Efficiency engineers of more or less efficiency are everywhere in the land. Individual corporations are spending millions of dollars on technical and administrative research annually. Take the Bell Telephone Company alone as an example. It has an experimental and research department which now has a staff of over five hundred and fifty engineers and scientific men, including professors, post-graduate students and other scientific investigators —the graduates of over seventy institutions. It is this organization which has made possible the fifty-three types and styles of receivers and seventy-three types and styles of transmitters introduced since 1877. It is this which has made possible

the solution of the problem of long-distance and underground transmission. It is this which has made possible a national telephone service and a great business enterprise. In addition the business of America accepts welfare work and workmen's compensation as good business sense, not philanthropy. It promotes schools for training and developing men in service.

Yet the welfare of this great business organization—its very existence—is intimately connected with the efficiency and intelligence of government. But business has failed to appreciate the need for similar research along technical and administrative lines for government. Or if not failing to appreciate the need it has at least neglected to do anything constructive or helpful in meeting it. The business interests are singled out for treatment here because of the glaring inconsistency between the practise of the management of our private and public business. The failure of other interests in our national life to see the need for political and administrative research is complete. It is, however, the fault of ignorance, or of indifference.

Are governmental policy and governmental administration the subject of the same serious and continuous study and of the same careful experimentation as our industrial organization? Yes, in one sense. The business interests of America make the activities of government a matter of careful study. Attorneys and economists without end are engaged to study governmental organization and function with reference to the effects on their "interests." Men engaged in the public service are taken into their organizations because of their knowledge of the government machine, or are lifted in the government service and subsidized or given advisory positions with large retainers.

But there is no continuous and serious study of governmental activities, their extension, modification or development with reference to the promotion of public welfare. The administrative commissions were developed to help remedy this defect in certain fields. They, however, have been so absorbed in their administrative duties that the research possibilities of the job have been almost entirely neglected. Certain activities of government such as making geodetic and geological surveys and the like are accepted by private business interests as a matter of course. "But," says Professor Ross, "on the other hand, such activities as the standardization of foods, the conservation of the state's natural resources, the making of all workshops safe and healthful, the enforcement of laws for the protection of labor, the efficient assessment of taxes and the regulation of banks, insurance companies, railroads, public utilities and water powers sharply interfere with the profits of certain powerful corporations and businesses and are, consequently, the objects of relentless hostility. Strong private interests not only fight stubbornly against the creation of state agencies to perform these services, but, once such agencies have been created, they strive continually to control, thwart, cripple or destroy them. There has been as yet no general acquiescence of the regulated businesses in the kind of regulation that curtails profits, nor is there much prospect of such acquiescence."

Despite the fact that it is fashionable to talk about the public service activities of universities, very little is actually done. There are, no doubt, strong tendencies in this direction in university education and political life, but no immediate results. Examine, for example, the dissertations of doctors of philosophy and see how barren

a field is investigated while the rich mines of contemporary political, economic and social problems are unworked. Dean Woodbridge, of Columbia, has aptly described the situation in these words:

> The degree (Ph.D.) in theory is more representative of certain traditional university ideas than it is of the society which supports our universities or of the students who seek instruction under our graduate faculties or of the educational status of the different departments of knowledge. . . . In other words, the degree is conceived primarily with reference to a standard and not primarily with reference to the preparation, needs, and aims of the students who are prepared to spend several years in university study, nor with reference to the expansion of university courses and departments.

Dean Marshall, of the University of Chicago, has pointed out another need:

> In this new educational movement another step must be taken—that of educating college authorities to the real nature of work in the social sciences. We are asked to interpret the life around us, asked to interpret it out of books which are antiquated before their ink is dry. We must demand greater opportunity to study our phenomena at first hand.

He concludes in fine scorn:

> Scientific diagnosis of present social ills is not less pressing than scientific classification of paleolithic fossils.

Whether the problem be looked at from the viewpoint of university education or the demands of our contemporary political and social life, or the improvement of public administration, the great need of American life is an institute of political and administrative research. From the standpoint of the universities it would furnish a demonstration of a service they would gladly undertake after a demonstration; from the standpoint of our contemporary life it provides machinery for aiding in its fundamental problems.

The American people have invested in universities over a hundred million dollars. The American university, except in rare instances due to strong personalities, is conservative and not constructive—or reconstructive. The most precious thing in the world—the youth of human life—has in our universities its vision repressed instead of stimulated, its passion for reforming the world stultified instead of redirected, its boundless energies utilized in keeping a treadmill going instead of marching on the road of human progress. From the educational standpoint an institute of political and administrative research might very well do the things the university is not doing. But that is another story.

Public service is not a profession. Public administration is therefore in the hands of amateurs. Government with its ever widening range gets along somehow—without very great success. Public officials are too much preoccupied with the day's work. Government is developing certain helpful agencies like legislative reference and municipal reference libraries, efficiency bureaus of civil service commissions and similar organizations, but these are in most cases half-hearted. An institute of political and administrative research would reinforce this movement and help in making government constructive and intelligent:

1. By continually gathering information and supplementing it by personal study regarding pressing political, economic and social questions.

2. By seeking effective methods of dealing with problems that are baffling us. This might be termed the field of social invention. The withdrawal of the defenses of contributory negligence, fellow servant rule for persons who refuse to accept workmen's compensation, are examples of what is meant.

3. By studying the possibility of the application of principles accepted in one field to others, *e. g.*, the principle that in-

dustry or society shall bear the burden of industrial accidents, not the individual.

4. By a continuous study of agencies, public and private, in their efforts to solve social problems.

5. By making personal studies "on the ground" of all "solutions" or reported solutions of the social problems through governmental instrumentality.

6. By working out better methods of public administration.

7. By training men for public service in doing all the foregoing.

8. By widespread publicity in the language of humanity of constructive work going on anywhere.

9. By a service department providing expert assistance to a community, a club or an association of citizens desiring to change conditions along the lines of the results obtained in the research of the institute.

Such are, in a most general way, the things that an institute of political and administrative research would do. It could do immensely more. All are such things that universities ought to be doing but are not. Society ought to have such an agency for continually studying its needs as part of its political organization. Such a service is an obvious duty of the universities, but they are recreant to this social obligation. The obvious thing to do is to organize an institute of political and administrative research, through non-official channels, to demonstrate its social necessity and its social usefulness. Why not now?

EDWARD A. FITZPATRICK

EDUCATIONAL EVENTS

EDUCATIONAL LEGISLATION

THE Bureau of Education reports bills introduced in the United States congress as follows:

Granting to the state of Nevada 7,000,000 acres of land in said state for the use and benefit of the public schools of Nevada and of the State University.

Providing for the establishment of a military aviation academy within the state of Utah.

Granting to the state of Montana 100,000 acres of land in said state for the support of a school of forestry.

Establishing a military academy at Fort Logan, Colo.

Establishing a naval academy at some point in the state of Washington to be designated by the Secretary of the Navy.

Establishing a military academy at some point in the state of Washington to be designated by the Secretary of War.

Establishing a military academy at Fort Snelling, Minn.

Establishing a preparatory military academy at or near Fort Douglas, Utah.

Making an appropriation of $100,000 for investigation and promotion of rural education.

Establishing the University of the United States.

Establishing a naval academy of the United States on Lake Michigan, at the city of Chicago.

Permitting the state of Wyoming to relinquish to the United States lands heretofore selected and to select other lands from the public domain in lieu thereof.

To promote efficiency of instruction at the Naval Academy by providing for the systematic appointment and compensation of professors and instructors on the teaching staff.

Granting to the state of Colorado land in said state for the use and benefit of the public schools and University of Colorado.

Increasing the number of cadets at the United States Military Academy.

Creating a national university at the seat of the federal government.

Directing the Bureau of Education to take such steps as are compatible with federal authority to encourage the teaching of the Spanish language in the United States.

Providing for the establishment of a division of civic training in the Bureau of Education.

Providing a civil government for Porto Rico.

Establishing a military academy at some point in the state of Illinois to be designated by the Secretary of War.

Regulating the admission of aliens to, and the residence of aliens in, the United States.

Establishing a naval and aviation academy on the Pacific coast within 150 miles of San Francisco.

Granting to the state of Utah the Fort Duchesne Reservation for its use as a branch agricultural college.

Creating the national board of rural-industrial schools for mountain children.

Establishing an aviation school and station at or near Fernandina, Fla.

Appropriating $1,000,000 annually to be used by the Bureau of Education, in cooperation with state departments of education, for the purpose of investigating and promoting rural education, industrial training and the elimination of adult illiteracy.

Providing for the appointment to the United States Military Academy of honor graduates of military schools.

Providing for the promotion of vocational education. Favorably reported.

Proposing the establishment of a military and naval academy on the Pacific coast.

Authorizing the appointment of a commission in relation to educational, vocational and military-naval training.

Authorizing the appointment of a commission in relation to the investigation and promotion of various phases of education by the United States executive departments and bureaus thereof.

SUMMER "ASSEMBLY IN SCIENCE" AT THE SCRIPPS INSTITUTION

THE experiment of holding a "Summer Assembly in Science" at the Scripps Institution for Biological Research at La Jolla, on the sea-coast near San Diego, will be tried by the University of California next summer for the first time. The purpose is to disseminate among teachers of biology and physical geography and others interested in modern science the discoveries and new points of view which are resulting from the investigations of this research department of the university, to acquaint the scientific pilgrims with the richly varied sea-life of the California coast, and to teach them how to read for themselves the books of nature as inscribed in the picturesque sea-coast of the San Diego region.

There will be lectures, conferences and demonstrations every afternoon of the six weeks by members of the scientific staff of the institution on the following subjects (each once weekly). "The Relation of Biology to the Sciences of Man," Professor William E. Ritter, Fridays; "Heredity, Environment and Adaptation," Dr. F. V. Sumner, Thursdays; "Some of the Messages of Marine Biology to Student and Teacher," E. L. Michael, Wednesdays; "Physical Oceanography, Including Some of its Relations to Meteorology," G. F. McEwen, Tuesdays.

"Local Coastal Physical Geography" will be a course to be conducted Monday, Wednesday and Friday mornings, at 10 o'clock by W. C. Crandall, who, as master of the *Alexander Agassiz*, the institution's sea-going scientific collecting vessel, has wide familiarity with the California coast.

The rest of the mornings of every day except Saturday will be devoted to lectures, laboratory, museum and field work for small groups of students on the characteristic animal and plant life of the ocean waters along the shore of southern California, this work being conducted by W. C. Crandall and P. S. Barnhart.

The university has been encouraged in such undertakings by the great success of the annual summer session at Berkeley (for next summer from June 26 to August 5), which last year enrolled 5,364 students.

Half a mile of ocean frontage, with cliffs, sand beaches and tide pools inhabited by a wide variety of sea-life is the ideal location which the Scripps Institution for Biological Research occupies, two miles north of La Jolla and fifteen miles north of the center of San Diego but within the corporate limits of the city. The "investors," as Miss Ellen B. Scripps and Mr. E. W. Scripps prefer to be known, have generously provided the Scripps Institution with maintenance funds and with a commodious laboratory building containing twelve private laboratories for investigators, a large aquarium room, a two-story concrete museum and library building, now in course of construction; and a concrete pier a thousand feet in length, at which the eighty-five-foot

collecting vessel, the *Alexander Agassiz*, can dock, and from the end of which, far out beyond the surf zone, pure sea water is pumped in to supply the nineteen tanks in the public aquarium and also the scientific laboratories. The institution possesses an excellent biological library of over 5,000 bound volumes and 8,000 pamphlets and the principal scientific journals in its field, and a museum is being assembled rich in its representation of the marine fauna of the California coast.

"Endowed research in pure science is absolutely essential to continued progress in civilization"—such is the declaration of faith which Director William E. Ritter makes in his announcement of this Assembly in Science at La Jolla, from June 25 to August 5. "In a democratic country like ours," he continues, "there must be provision for investigation and also definite measures to disseminate the fruits of investigation as widely as possible among the people."

Any persons interested in science who wish to attend the assembly at the Scripps Institution are requested to write as soon as possible to Professor William E. Ritter, scientific director of the institution, at La Jolla, so that proper provision may be made.

APPROPRIATIONS OF THE GENERAL EDUCATION BOARD

The General Education Board, founded by John D. Rockefeller "to promote education within the United States" without distinction of race, sex or creed, will shortly issue its complete annual report for the fiscal year 1914–15.

The first installment of that report shows that since its organization and up to June 30, 1915, the board had appropriated directly $16,862,147.71. Of this amount, $10,848,084.07 had been paid out, and $6,014,063.64 was awaiting requisition.

Up to that date the board had appropriated its entire accumulated income with the exception of $198,992.35.

The report shows the value of the board's resources, supplied by Mr. John D. Rockefeller, to be $33,958,848.40, of which $30,918,063.80 is general endowment and $3,040,784.60 reserve fund.

The gross income from these funds for 1915 was $2,230,425.41. In addition, the Anna T. Jeanes Fund, which is administered by the board, yielded an income of $7,910.46. The administration of these funds is in the hands of a board of trustees consisting of Frederick T. Gates, chairman; Walter H. Page, John D. Rockefeller, Jr., Albert Shaw, Wallace Buttrick, Starr J. Murphy, Edwin A. Alderman, Hollis B. Frissell, Harry Pratt Judson, Charles W. Eliot, Andrew Carnegie, Edgar L. Marston, Wickliffe Rose, Jerome D. Greene, Anson Phelps Stokes, Abraham Flexner and George E. Vincent.

The General Education Board's appropriations up to June 30, 1915, had been as follows:

Universities and colleges for whites for endowment	$11,672,460.16
Medical schools	2,670,874.11
Colleges and schools for whites, for current expenses	159,991.02
Colleges and schools for negroes	811,781.13
Southern Education Board	97,126.23
Salaries and expenses professors of secondary education	275,580.01
Salaries and expenses supervisors negro rural schools	84,320.57
Salaries and expenses rural school agents	70,645.77
Farmers' cooperative demonstration work in south	716,077.80
Farmers' cooperative demonstration work in Maine	45,173.67
Farmers' cooperative demonstration work in New Hampshire	24,593.49
Girls' canning and poultry clubs in south	113,751.52
Girls' and boys' clubs in Maine	11,205.12
Rural organization work	36,646.83
Conferences	18,420.28
Educational surveys	32,500.00
Home Makers' Club agents in southern states (colored)	15,000.00
Rural education	6,000.00
	$16,862,147.71

EDUCATIONAL NOTES AND NEWS

Dr. Charles W. Eliot, president emeritus of Harvard University, whose important article on "Changes Needed in American Secondary Education" was printed in the issue of School

AND SOCIETY for March 18, celebrated on March 20 his eighty-second birthday.

FRANK B. PEARSON, high-school inspector for Ohio State University, has been appointed Ohio state superintendent of public instruction by Governor Willis, to succeed Frank W. Miller, who has resigned to become superintendent of the Dayton schools.

ELECTED dean of the new college of commerce and journalism of the Ohio State University, Dr. James E. Hagerty, head of the department of economics and sociology, will begin his new duties next fall.

CHARLES H. RIEBER, for considerations of health, has resigned the deanship of the summer session of the University of California, returning to his former activities as professor of logic. In the nine years that he has served as dean of the summer session, its enrollment has increased from 522 in 1907 to 5,364 in 1915. Last summer only two American states were unrepresented. There were seventeen foreign countries which sent students and forty per cent. of the students came from outside California. Walter Morris Hart, associate professor of English philology, is to succeed Professor Rieber as dean.

DEAN IRVINE has resigned from the faculty of the law school of Cornell University to become a member of the Public Service Commission.

W. C. STURGIS has resigned his position as dean of the Colorado School of Forestry in order to devote himself more exclusively to the interests of St. Stephen's School for Boys in Colorado Springs.

CHARLES L. SMITH, principal of the Morse High School, at Bath, Me., has accepted the principalship of the Saugus (Mass.) High School.

DR. DONALD B. ARMSTRONG and Mrs. Armstrong have been awarded the prize of $1,000 offered by the Metropolitan Life Insurance Company for the best pamphlet on social hygiene for boys and girls. Dr. Armstrong has since 1913 been connected with the Association for Improving the Condition of the Poor in New York in which he is now the director of the department of social welfare. Mrs. Armstrong was formerly a sanitary inspector of factories in the state of New York.

PROFESSOR WILLIAM TRELEASE, of the department of botany of the University of Illinois, has been elected president of the Illinois Academy of Science.

EDWARD ORTON, JR., has resigned the deanship of the college of engineering of the Ohio State University, to become research professor. Dean Orton went to the university in 1894 as professor of clay working and ceramics, serving in this capacity until 1908, when he was made dean of the engineering college. He is the son of Dr. Edward Orton, Sr., who was the first president of the Ohio State University. Professor Herbert Osborn has been elected research professor of entomology, and will be relieved from all routine teaching and departmental work, spending his entire time in research. Professor Osborn received his degree of bachelor of science from Iowa Agricultural College in 1879 and went to the Ohio State University in 1898.

MISS K. JEX-BLAKE has been appointed mistress of Girton College, Cambridge, to succeed Miss E. E. Constance Jones, who is retiring at the end of the Easter vacation. Miss K. Jex-Blake is a daughter of the late Rev. T. W. Jex-Blake, D.D., headmaster of Rugby and dean of Wells. She entered Girton College as a student in 1879, was appointed resident lecturer in classics in 1885, and has held the post of vice-mistress since 1903.

DR. CLARENCE J. MARSHALL, professor in the veterinary school of the University of Pennsylvania, and Dr. Alonzo E. Taylor, Rush professor of physiological chemistry in the university, have gone to Europe. Dr. Marshall went in the interest of the university to study the treatment of wounded and exhausted animals; the methods of preparing horses for war and protecting them from diseases; and Dr. Taylor, as an appointee of the War Department, will engage in the study of Red Cross work as an attaché of the American Embassy in Berlin. Both will return to the university for the opening of the school year in the autumn. Dr. Daniel J. McCarthy, another mem-

ber of the faculty, also has been appointed to the service of the United States in Germany, and will study conditions in German prison camps.

PROFESSOR NORMAN KEMP-SMITH, who was called from Scotland to a chair of philosophy in Princeton University, has sailed to join the British army.

PRESIDENT FRANK J. GOODNOW, of the Johns Hopkins University, has delivered the first lectures on the Colver foundation at Brown University, the subjects being "The American Theory of Private Rights," and "The American Theory of Government."

FOUNDERS' DAY at Randolph-Macon Woman's College was celebrated on March 13 with fitting exercises. All collegiate work was suspended for the day and in the evening President Mary Woolley, of Mount Holyoke College, delivered an address in the college chapel on "The College Woman and the New Epoch."

MILITARY training in the New Jersey public schools will not be instituted this year, the senate having defeated the bill by a vote of 6 to 13, with two absentees. The bill proposed military drills for boy pupils and courses in nursing and hygiene for girls.

THE trustees of the University of Pennsylvania, in Philadelphia, have granted the petition of students asking for the installation of a course of military training at the university under direction of the War Department. Provost Smith appointed George Wharton Pepper, John C. Bell, Dr. Robert G. Le Conte, James G. Rosengarten and John Cadwallader as members of a committee to work with the faculty in making plans for the new course. The plan submitted to the trustees provides for lectures and camp and field work during three hours each week. The military training will supplant some of the gymnasium work and in this way the course will not interfere with the existing system or credits. It is said that about 500 students are now ready to enroll.

A COMMITTEE representing the teachers' and principals' associations in New York has made public a pamphlet attacking the administration of the schools under the city government. The record made by the Board of Estimate and Apportionment since the consolidation of the boroughs in 1898 is held up as a warning of what the teachers say is bound to happen if the schools are put under the control of the city government. The teachers' purpose is to have the State Education Department exercise its constitutional right of control in the schools. If, the pamphlet says, the state authorities do not exercise that right a complete demoralization of the schools will ultimately take place.

THE controversy between the New York City Board of Education and the Board of Estimate in the matter of payment of statutory salaries to teachers in the seventh and eighth grades of the public schools was settled on March 16 when the Board of Estimate agreed to make up any deficit in the general school fund created by the promotions of teachers. The resolution offered by Mayor Mitchel, which was adopted unanimously, reads as follows:

Resolved, That it is the sense of the Board of Estimate that the Board of Education be advised that in the event of that board making promotions in the seventh and eighth grades of the elementary schools during the current year and that should there exist any deficit in the general school fund due to the making of these promotions, even after such further economies as are possible have been effected, the Board of Estimate will be prepared to furnish the funds necessary to cover the deficit.

About one thousand teachers are affected by the resolution.

THE $1,800,000 of "University Building Bonds," voted by the people of California through approval of an initiative measure proposed by the alumni of the University of California, for additional building work on the campus at Berkeley, have been segregated by the regents of the university as follows: Benjamin Ide Wheeler Hall, a class-room building with a capacity of 3,500 students, its exterior to be of white granite, $700,000; completion of the University Library, of which the present portion was built at a cost of $840,000, mostly

defrayed by the bequest of Charles F. Doe, $525,000; second unit of the group of agricultural buildings, $350,000; first unit of a group of permanent buildings for chemistry, $160,000; new unit for the heating and power plant, $70,000; furnishings and equipment for the four structures first mentioned, $134,000.

PROFESSOR J. CARLETON BELL, of the department of education, University of Texas, recently delivered an address at the University of Iowa on "The Significance of Mental Tests for College Students."

THE two hundred and ninth meeting of the Schoolmasters Association of New York and Vicinity was held on March 17, at the Columbia University Club. Dr. Nathan Oppenheim, author of books on the development and care of children, delivered the address of the evening on "Possibilities of Medicine," which was followed by discussion.

SCHOOLMEN'S WEEK, the annual conference of schoolmen at the University of Pennsylvania, will be held this year on April 12, 13, 14 and 15. Topics of interest to city superintendents and county superintendents, high-school teachers and elementary teachers will be discussed. Among those whose names appear on the program are Dean James E. Russell and Professor George D. Strayer, Teachers College, Columbia University; Professor E. P. Cubberley, Leland Stanford University; Dean Lotus D. Coffman, college of education, University of Minnesota, and Dr. Lida B. Earhart, of the New York City schools.

THE New England Association of English Teachers held their sixteenth annual meeting on March 18, in the lecture hall of the Public Library. Professor William A. Neilson, of Harvard University, Robert Frost, author of "North of Boston," and Professor John Erskine, of Columbia University, were among the speakers.

THE death is announced of Professor Anson D. Morse, who retired from the chair of history at Amherst College in 1906.

WILLIAM C. COLLAR, formerly principal of the Roxbury (Mass.) Latin School, died on February 27, at the age of eighty-three years.

DR. W. W. WATERMAN died at his home in Taunton, Mass., on February 13, in his eighty-fifth year. He was the first superintendent of the Taunton schools, serving from 1869 to 1886.

ON March the eighth, Founders' and Benefactors' Day at DePauw University, the new Thomas Bowman Memorial Gymnasium was dedicated with elaborate ceremonies. In the morning the Hon. Samuel M. Ralston, governor of the state, presided and spoke. The chief address was by President Thompson, of the Ohio State University, who spoke upon "The Place for the Physical in a Christian Scheme of Education." In the afternoon the formal dedication took place. At this service the Hon. Chas. W. Fairbanks, a member of the corporation, presided, the dedicatory address being delivered by the Rev. Bishop William F. McDowell, of Chicago. In the evening there was a public reception and the building was thrown open to the public. The structure has cost one hundred and twenty-five thousand dollars and is pronounced by experts to be up to date in every respect.

THE establishment of the higher professional degree of "Graduate in Education" has been recommended to the regents of the University of California by the academic senate, this degree to be conferred upon the completion of four years of professional work, two full years of graduate study, one of these at the University of California, and a minimum of thirty-six units of upper division and graduate work including twelve units of courses in education, a minimum of twelve units in advanced work in a minor, and a professional thesis and an examination under the direction of the school of education.

THE trustees of Columbia University have voted that women should be admitted to the study of medicine, but the actual date of admitting them was made contingent upon the provision of proper accommodations for their use. This will probably not be possible before the larger plans for the extension of the medical school, in alliance with the Presby-

rarian Hospital, upon a site on which both institutions will be placed.

A reciprocity has been adopted by the Bureau of Medical Education and Licensure of Pennsylvania that graduates of all medical schools in the Dominion of Canada be required to take the final year in one of the Pennsylvania medical colleges and to qualify in the hospital interne year before being eligible to enter the Pennsylvania licensing examination. This action is similar to that taken in recent years by the licensing boards of certain Canadian provinces, affecting graduates of American medical schools.

An institute for "government research" was incorporated in Washington on March 13, the fundamental purpose of which, according to its incorporators, is to apply the test of efficient business methods to administrative and governmental activities and to cooperate with public officers in promoting efficiency. Dr. Frank J. Goodnow, president of Johns Hopkins University, will be chairman of the institution's board of trustees, of which Robert S. Brookings, of St. Louis, will be vice-chairman. Headquarters will be established in Baltimore. The other trustees are: Edwin A. Alderman, Charlottesville, Va.; James F. Curtis, New York; R. Fulton Cutting, New York; Charles W. Eliot, Cambridge, Mass.; Raymond B. Fosdick, New York; Felix Frankfurther, Cambridge; Arthur T. Hadley, New Haven; Mrs. E. H. Harriman, New York; James J. Hill; G. Lombardi, Dallas; A. Lawrence Lowell, Cambridge; Samuel Mather, Cleveland; Charles P. Neill, Washington; Martin W. Ryerson, Chicago; Frederick Strauss, New York; Theodore N. Vail, New York; Charles R. Van Hise, Madison, Wis., and Robert S. Woodward, Washington.

The Educational Section of the New York State Woman Suffrage party has instituted a night school. It will be open for men and women on every Tuesday and Friday evening from 8 to 10 P.M., beginning April 4 and continuing for six weeks. The courses will follow the same lines as those given at 303 Fifth Avenue. Mrs. Urquhart Lee, Mrs. Beatrice Forbes Robinson Hale, Professor Arthur MacMahon, of Columbia University, Mrs. Arthur Livermore, and Miss Louise Grant will conduct classes. The Teachers' Section of the New York State Woman Suffrage party, numbering more than 19,000 teachers, is largely responsible for the demand for night schools. The fee for the course is $2, and there will be courses in suffrage history and argument, civil government and political methods, parliamentary law, organization and public speaking. Further information may be had from Miss J. R. Decker, Room 3003, at headquarters, 303 Fifth Avenue. The course is free to all members having already paid a supporting membership of $5 to the organization.

Several courses for teachers have been planned at the Brooklyn Botanic Garden, including a course in local flora especially for teachers of nature study. Part of the time will be given to field study, mainly in the Botanic Garden or Prospect Park. The course will be given on Saturdays, at 3 o'clock, from March 11 to June 10, under Dr. Gundersen.

The lecture and demonstration work with the blind children of Manhattan and the Bronx under the auspices of the American Museum of Natural History, inaugurated in 1910 through the Jonathan Thorne Memorial Fund, has during 1913 been extended. Classes of blind children from the public schools now visit the museum from ten to fifteen times each month, as against twice a month in 1912. The aim has been to cooperate as perfectly as possible with the schools and teachers in regard to time, subject and treatment, and secondly, to have the classes as small as possible so that each child may handle at leisure each specimen or exhibit and may ask questions about it. Talks are given upon a series of subjects, for example: "How our Furred Friends spend the Winter;" "Native Birds and their Nests;" "How Men Travel;" "Cotton, Wool and Silk." Miss Ann E. Thomas, who has charge of this work, makes a point of showing as many natural specimens as possible, in addition to models. Appreciation of the work is so general and practical that twice as many classes are asked for as can be provided with the present equipment.

DISCUSSION AND CORRESPONDENCE

THE NEW ARRANGEMENT OF COURSES IN THE UNIVERSITY OF NORTH DAKOTA WHICH CONNECTS WITH HIGH SCHOOLS

The program of studies in the college of arts in the University of North Dakota has, by action of the university council, been somewhat changed. An effort has been made to relate the college work more closely to that of the high schools, to insure a broader foundation in the first two years of college life and more scholarly work in the latter years, and in other ways to give the student's curriculum better coherence and balance.

Hereafter a freshman on entering the college will take, as heretofore, rhetoric, a foreign language, physical science and a social science; but in each case the condition as shortly changed. Rhetoric is to be separated from English literature and pursued as a separate study three times a week throughout the year. A new course is to be known as English IA, and 2A, a course in English literature, is to be offered five times a week during the year. Students who desire, and whose preparatory record justifies them in so doing, may take IA and 2A along with their English 1 and 2. Others will postpone IA and 2A until the sophomore year.

Students electing an ancient language or beginning work in a modern language will meet their instructor four times a week, as at present. Students continuing a modern language already begun in high school will meet only three times a week. The time to be required modern language work, a week, is as follows: Those beginning modern language in college will take four hours per semester during their freshman year, three hours per semester during the sophomore year, and two hours per semester during the junior year. Those who bring credit for one year's work and continue in the same language will meet three hours per week during both freshman and sophomore years, and two hours per week during the junior year. Those who continue in college a language pursued successfully for two years in high school will meet three times per week during the freshman year and three times per week during the sophomore year. By this plan it is hoped that the student will be encouraged to begin language in high school.

In physical science the freshman hereafter must take either physics or chemistry, unless he has already studied both of these in high school, in which case he may take any science for which he is prepared. In regard to social science and mathematics, those electing to specialize in physical science or credited with elementary mathematics, as the case may be, prerequisite to advanced courses in chemistry, physics or geology, there may take social science or mathematics, as the case may be. Those taking physical science will elect, one semester, in the sophomore year, history and one in sociology. Those who will not elect physical science will elect economics hereafter.

A prospective freshman will be entered for matriculation lectures on physical training. The reduction in the number of hours required in gymnasium and in modern languages will make it possible for those who desire to elect two-hour courses in Home Economics, Manual Training and Commerce. These courses will be offered five hours each week throughout the year. Students who elect two-hour courses will be required to attend lectures one hour each week throughout the year.

To the present requirements for graduation from the sophomore year, English literature (courses 1 and 2A), if not completed in the freshman year, will be required. The work in foreign languages will amount to four hours per week, as at present. If an ancient language is pursued, but two or three hours per semester, as explained above, if a modern language is pursued, it must be taken four hours per week throughout the year, unless the student elect an course in which a longer period of study is required. Those who take history and sociology during the junior year, which those who in freshman composition and two hours of mathematics are required to take one hour each week throughout the year, four hours each week throughout the year, two courses from each of the following groups, namely, economics, sociology, French, German,

terian Hospital, upon a site on which both institutions will be placed.

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THE NEW ARRANGEMENT OF CURRICULUM IN THE UNIVERSITY OF NORTH DAKOTA MAKES CLOSER RELATION WITH HIGH SCHOOLS

THE program of studies in the college of arts in the University of North Dakota has, by action of the university council, been somewhat changed. An effort has been made to relate the college work more closely to that of the high schools, to insure a broader foundation in the first two years of college life and more scholarly work in the latter years, and in other ways to give the student's curriculum better coherence and balance.

Hereafter, a freshman on entering the college will take, as heretofore, rhetoric, a foreign language, a physical science and a social science; but in each case the conditions are slightly changed. Rhetoric is to be separated from English literature and pursued as a separate study three times a week throughout the year. A new course to be known as English 1A, and 2A, a course in English literature, is to be offered twice a week during the year. Students who so desire, and whose preparatory record justifies them in so doing, may take 1A and 2A along with their English 1 and 2. Others will postpone 1A and 2A until the sophomore year.

Students electing an ancient language or beginning work in a modern language will meet their instructors four times a week, as at present. But those continuing a modern language already begun in high school will meet only three times a week. The plan for the required modern language work, as a whole, is as follows: Those beginning a modern language in college will take four hours per semester during their freshman year, three hours per semester during the sophomore year, and two hours per semester during the junior year. Those who bring credit for one year's work and continue in the same language will meet three hours per week during both freshman and sophomore years, and two hours per week during the junior year. Those who continue in college a language pursued successfully for two years in high school will meet three times per week during the freshman year and twice a week during the sophomore year. By this plan it is hoped that students will be encouraged to begin a language in high school.

In physical science the freshman hereafter must take either physics or chemistry, unless he has already studied both of these in high school, in which case he may take any science for which he is prepared. In regard to social science and mathematics, those expecting to specialize in physical science are urged to elect mathematics, as this work is prerequisite for advanced courses in chemistry, physics or geology. Others may take social science or mathematics, as they prefer. In case the social science is elected, one semester is to be given to history and one to sociology. Freshmen will not be admitted to economics hereafter.

As heretofore, the freshmen will also enroll for matriculation lectures and physical training. The reduction in the number of hours required in English and in modern languages will make it possible for those who so desire to elect a two-hour course in Wesley College, an affiliated college of the university. To meet the situation Wesley College will offer two-hour courses in Biblical history and literature.

The new program also modifies to some extent the work of the sophomore year. English literature (courses 1A and 2A), if not completed in the freshman year, will be required. The work in foreign languages will amount to four hours a week as at present, if an ancient language is pursued, but two or three hours per semester, as explained above, if a modern language is selected. In science, a course in biological or geological science must be taken, unless such a course was taken in the freshman year, in which case the student is free to select any science for which he is prepared. In social science, four hours of economics are required of those who took history and sociology during the first year, while those who as freshmen completed eight hours of mathematics are required to take eight hours of work, four from each of two departments (history, economics, sociology). Physical training

is required as at present. The remaining work of the sophomore year (enough to make up about 33 hours) may be selected as the student desires.

During the second half of the sophomore year each student will hereafter select from among the studies into which he has dipped, one which with the consent of the head of the department shall henceforth be his major subject. To this he shall give at least sixteen hours during junior and senior years. Some departments may require more than this. He shall also, under the advice of the head of the department in which he intends to do his major work, who thus becomes his adviser, select two minors which he shall pursue for at least eight hours beyond the introductory year. The remainder of the work of the two latter years is elective. Students who intend to elect law in their senior year may regard that as their major and should consult with the dean of the college of law relative to their minors, which in this case should be completed, if possible, during the junior year. Sophomores who intend to enroll in the school of education should consult with the dean of that school in regard to their majors and minors.

As said at the beginning, it is thought that this plan will result in each student's having a better training than some secured under the former plan. It will insure some insight into several of the great fields of knowledge and, by insisting on a reasonable degree of specialization in at least three recognized departments, will prevent such desultory browsing as has sometimes occurred.

V. P. Squires

QUOTATIONS

MILITARY DRILL IN THE PUBLIC SCHOOLS

Plan war, breathe war, act war, and war will come.

No nation can long live in an atmosphere of war and not fight. A small standing army may want war and yet be held back by the calm good sense of peace-loving millions. But if all the children of a nation are trained to fight, sooner or later that nation will fight—be its quarrel just or unjust.

Four million dead, mangled and "missing" have in twenty months paid the price of "preparedness" in Europe. And the end is not yet. Millions more must die. Why? Because whole nations have been taught to believe that the God of War is the final arbiter—that, so prepared, their first appeal to him would bring victory. And the mad rush to arms will always come when nations so believe.

This is the real objection to the bill passed yesterday by the assembly for military training in the schools. Such training will establish in childish minds military ideals—and military ideals not merely as a means to an end, but as an end in themselves.

Of course there are other reasons why this particular bill should be killed—because of the financial burden it will add; because it interferes with serious studies; because, even from a military standpoint, it is the crude and ill-considered product of a passing hysteria. The worth of the few childish drills, for which this bill proposes to rob the school hours, will avail nothing in the stress of modern warfare. What can boys of fifteen learn in two hours drill a week that would be of value in the hell-fires of Verdun? Germany herself—military mad—rejected military training in the schools as worthless. Her army experts recommended that her boys would make better soldiers by devoting their childhood days to broad general knowledge—not to military drills.

But the real reason why the senate of New Jersey should kill this bill is that military training in American schools will make of our children—not real soldiers—but a nation ready to slaughter their fellow men at the drop of a hat.—The Atlantic City *Review*.

The course stands clear before Boston school committee. In the recommendation made to it last night, by its special advisers on military affairs, there was perfect union of plan and purpose. Their firm intention to bring the spirit of '76 to life, not to talk, in the public schools of the city led to practical and useful proposals. First and most impor-

tant was that to establish summer military camps for high-school students. Already the nation has been converted to the summer-camp idea by its great success among college students and business men, but it has not perhaps appreciated as yet that every reason which makes the summer camp useful and attractive to adults is increased and intensified when proposed to the boys of the country. Think what it means for them! A complete departure from all enforced tedium of drilling with tin swords, and entrance into a "reg'lar camp" where every realistic detail of a soldier's life not in fact provided will be quickly supplied by their young imaginations—a period of intensive training that will help to make them better men and better Americans, while it provides them with the healthiest vacation most of them ever have had or will have.

It is not, however, the summer camp's romance which makes its value, but the reality, attested to by many authorities, that in these periods of concentrated training and study there lie the best of all possible means for acquainting men and boys with the work of the soldier, and for instilling into them that habit of obedience and personal reliability without which they can be neither soldiers nor useful citizens.—Boston *Evening Transcript*.

BOOKS AND LITERATURE

Vocational Education in Europe. By EDWIN G. COOLEY. The Commercial Club of Chicago, Chicago. 1915. Vol. II. Pp. 177.

This new volume by the former superintendent of schools of Chicago supplements the material of his earlier volume, published under the same title, and helps to justify that title. One looks in vain for any indication that a third volume is in prospect, although so far as the reviewer has been able to discover there is no mention of industrial education in either France or Belgium. Yet at the time this book came from the press both these countries were doing as high a type of vocational work (technical education is their term) as one could find in any of the countries reported upon. Germany's primacy in the field of vocational education is due to the more widespread nature of that work rather than to its quality.

Be that as it may, in view of the prominence of the place occupied by vocational education in American educational circles to-day, one is glad to welcome this new contribution to our knowledge of European experience. Agricultural instruction occupies substantially half the book, treating in separate chapters conditions in Denmark, Ireland, Holland and Germany. Bishop Grundtvig and the People's High Schools of Denmark, Industrial Instruction in Ireland, Schools of Country Housekeeping, Vocational Guidance in London, Welfare of Working Youth in Germany, and the Report of the Swedish Royal Commission on Elementary Technical Instruction complete the list of chapters.

One wishes the author might have expanded his work considerably, for it is exceedingly difficult to cover so wide a field in such a brief compass. Unfortunately some of the chapters read much like the prospectuses of the schools themselves. Such a method of treatment has the advantage of giving a certain amount of definite, specific information, but it is not always attractive to the general reader. Of course such facts commend themselves to the professional school man who has to face problems of organization of courses and requirements of work. The Introduction and the two chapters on the People's High Schools and Welfare of Working Youth in Germany are by far the most readable.

From time to time throughout the book, the author's well-known position as protagonist for the so-called dual system of control is evident. He believes thoroughly that a system of vocational schools will succeed better under a separate board than under the control of the existing boards of education. "*In not a single instance*," he declares, have the various countries of Europe solved "this educational problem by means of the school system then in existence with entire success" (p. 19).

While it is true that most of the European countries have separate boards of control of vocational schools, this is largely due to the

very simple yet powerful fact that despite modifications in existing courses of study, the classical ideal in education has persisted with remarkable tenacity. Classicism was so entrenched in the minds of the controlling authorities of the European systems, that these authorities refused to recognize the claims of the non-classical subjects, much less of the non-classical schools. Industry, commerce and agriculture were so discriminated against that their only recourse was to build up a system of schools of their own. We in this country have broken away from classicism to such an extent that it is very doubtful if such extreme measures would be necessary here. Our educational authorities have shown themselves more tolerant of the newer subjects. It is much more important for our existing school boards to secure the cooperation of men from the world of affairs through the medium of advisory committees and the like than for us to set up a duplicate system of education with its necessarily greater waste and greater cost of administration.

Our universities with their highly specialized departments of law, medicine, engineering, and the like seem to have succeeded reasonably well under their single governing boards, largely because they keep in close touch with the leaders of the various professions on the outside. It is reasonable to believe that the same success would be obtained in the lower schools if a similar cooperation were attempted. Business men the country over stand ready to extend a helping hand. It is only necessary for school authorities to meet them half way. Thus effective results may be accomplished in industrial, commercial and agricultural lines without the extremely wasteful duplication of administrative boards and its consequent possibility of conflict between them.

The reference to the Prussian minister of religious, educational and medical affairs (p. 129) is rather untimely, for since April 1, 1911, there has been a separate minister of medical affairs in Prussia.

Eight full-page illustrations add materially to the attractiveness and value of the book, but one seeks in vain for any list of these. There is a very meager bibliography, and the book suffers from lack of an index. In a publication of this character, such an omission militates seriously against its usefulness.

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EDUCATIONAL RESEARCH AND STATISTICS

HOW TEACHERS MARK

When a teacher is given a passing grade, a percentage method of marking students, and entire freedom in devising a system (or no system) of grading, his set of figures is likely to show tendencies which he himself does not realize. This set, when exhibited by points plotted with reference to the percentages of students receiving the several grades or by curves connecting the points, reveals peculiarities and striking divergencies from what one naturally considers normal. These divergencies and grading habits of several members of the faculty of Colorado College were interestingly presented in connection with an investigation of freshmen marks. I venture to present some of these graphical results, suggestive to every teacher as showing the faults of marking without following some system.

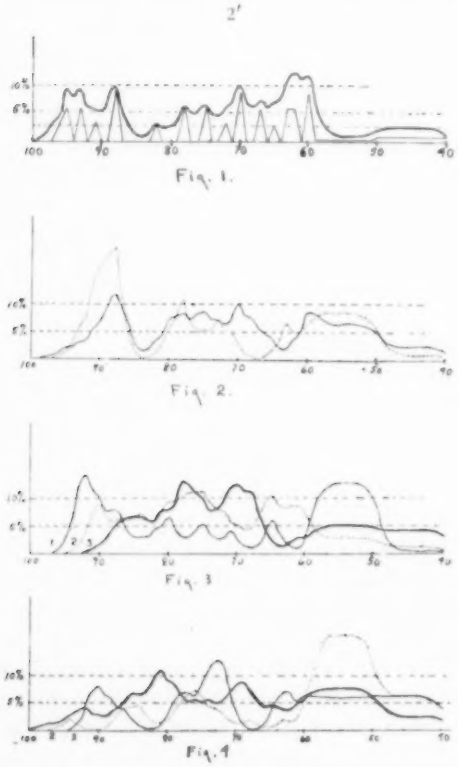
Numerals are used in Colorado College with a passing mark of 60 and a failing mark of 50, marks between these numbers indicating conditions. With such a marking system a fair prediction can be made regarding the distribution of marks for any group of students selected at random. It is safe to look for the majority to be between 65 and 85 with a heaping up near 75. Required courses will show lower grades in general than elective courses, and larger groups will be more free from unpredicted variations than smaller groups. Such are the reasonable guesses. Let us see what the untrammeled judgment of the college professor produces and how it agrees with the judgment of his colleagues.

In order to present at a glance the tendencies of an instructor to give high or low marks, to bunch many marks together, or to depart from the normal or average, it was found necessary to consider several types of graphic representation. One consisted of points so plotted that for each the abscissa indicated a grade and the ordinate indicated the relative number of students receiving that grade. The curve formed by joining the points was found, however, to convey little information about the marking habits of the instructor or the scholarship of the class. To be sure, from such a curve one could ascertain easily what percentage of the class received 60 per cent. or 72 per cent., etc., but one failed to appreciate that many more students were passed with say a grade *near* 70 per cent. than with one *near* 85. Then too the very raggedness of the curves made them all seem very much alike and confused the eye when looking for differences. Hence it was found desirable to build an *impression curve* upon the following plan. If 10 per cent. of the students received a grade of 70, instead of setting down simply one point thirty spaces to the right of the origin—the number of spaces corresponding to the difference between the grade and 100—and ten spaces above the axis to correspond to the number of students receiving 70, a point was placed upon this 70 per cent. vertical line ten spaces up, two points, one on the 69 per cent. vertical line and one on the 71 per cent. line, six spaces up, two points, one on the 68 per cent. line and one on the 72 per cent. line, three spaces up, and finally two, one on the 67 per cent. line and one on the 73 per cent. line, one space up. When these points were connected by a smooth curve it resembled the probability curve. The fact that 10 per cent. of the students received 70 affected the height of the curve at neighboring grades. If in turn some students made grades close to 70 this fact made the curve at 70 higher than it otherwise would have been.

The value of this method of presentation is illustrated in Fig. 1. Here are shown in the straight line diagram the percentage of students getting particular grades in a modern language section of thirty-three members and in the curved graph the impression curve for the same class. The first shows that more students were marked 60, 70 and 88 than anything else, and that the same number of students received 62, 63, 67, 75, 78, 93 and 95. However we can hardly guess from this diagram, as we see at once from the second curve, that there is a heaping up of the grades in the low sixties, a gap in the eighties, and another heaping up in the nineties. Both graphs together give us remarkable insight into the virtues, faults, and habits of the teacher for the most part unknown to him. From the graphs can be learned the peculiarities of the class itself. Thus in Fig. 1 the instructor shows a not unusual fondness for round numbers among the low passing grades, which quaintly degenerates into partiality for grades ending in 8 in the high seventies and eighties. The crests in the high eighties and the nineties followed by a trough in the low eighties suggest a tendency to high marking by which all students doing good work get *very high* marks. The "easiness" of the instructor is again shown by the crest in the low sixties. Probably some students who should have been conditioned with marks below 60 were passed with low grades. The fact is that this particular instructor has a reputation for "easiness" and the foreign language he teaches is elected by many who, compelled to take some foreign language, hope that this one will prove least hard. The result is that the highest crest of the impression curve lies very near the lowest passing grade. For it is generally true that students looking for the least hard required work are satisfied with the minimum results.

The two curves of Fig. 2 are the impression curves for two classes in modern languages conducted by the same instructor. The similarity of the two graphs is marked, and the differences are due rather to the inequality of the sections, the dotted graph belonging to the smaller division, than to the different character of the groups. As might be expected, the

smaller class produces in its graph the more abrupt rises, higher crests and deeper troughs. Both curves exhibit a maximum crest just above 88, and a deep trough in the low eighties, as though all the students worthy of a B (a grade in the eighties) were given a high B. Both show a curve of good height through



the seventies, tending to be higher near 80. They drop steeply in the D's (grades in the sixties) but rise fairly high at 60, remain high through the fifties, and almost vanish below the conditionally passing mark of 50. The high crest was inexplicable to me at first until I learned that only such students as received marks above 87 were exempted from the final examination. Unconsciously the instructor had set too high a mark for himself, and found some students below 87 whom he thought worthy of exemption. He had habitually raised the grades of these students to 88 instead of lowering the critical mark to the grades of the satisfactory students. A little soft heartedness is shown in the curves at 60 and beyond. Evidently some students received 60 who should have been conditioned, and many were conditioned because failures were dreaded.

In Fig. 3 are shown the impression curves for three fairly large groups in the same required subject taught by three instructors distinctly unlike in mental habits and in preparation. The graph numbered 1 is remarkable. The high crest above 90 would prove an easy marker were it not that the rest of the graph shows no fondness for high marks. The instructor insisted that the class was abnormal, consisting largely of very strong or very slow students. The wavy appearance of the curve, considering the large number of students in the group, shows that the instructor gave grades in bunches, marking several students 65, 71, 75, 80, etc., and disregarding the intervening grades. He probably has a magnitude or number perception so poorly sensitized that a difference of one or two among grades in the seventies and eighties means nothing to him. In fact investigation shows that the percentage system of marking is too delicate for the use of many teachers. The massive hump in the fifties (due largely to incomplete work on the part of many students) shows lack of drive on the part of the instructor or a most disheartening set of students. One wonders why more were not marked as failed.

The graph numbered 2 is for a very large group, and on the whole is a pretty fair curve. The crest at 90 must be due to a large number of nineties, which a teacher with a nicer number sense would have spread out. The crest in the seventies is to be looked for. That one in the sixties seems to have absorbed much height belonging to the unsatisfactory grades beyond 60. The instructor was soft hearted or was such a driver that he would not permit students to fail.

Curve number 3 indicates a severe grader. It hardly ventures into the nineties, and rises quite steadily from the midst of the sixties to the marks meaning condition and failure.

Moreover, the curve shows a tendency always to be higher below 90, 80, 70 and 60 than above these grades. Most instructors are quite ready to add a few points to a mark just below these numbers so that the student may get the "benefit of the doubt" and the better literal grade. For it must be explained that in Colorado College students have their grades reported to them not on the percentage system but in letters, as follows: A is 90–up; B is 80–89; C is 70–79; D is 60–69; E is 50–59 (condition); F is 49–down (failure). Such an instructor as this one when teaching a required subject is avoided by those students who seek high grades and by the sluggards. Probably this fact goes far to explain why the other two curves had crests near 90 and 60.

One might infer that the dissimilarity of the three curves of Fig. 3 was due to the marked unlikeness of the instructors. It happens, however, that the three impression curves of Fig. 4 are as dissimilar as those of the other group, although they show the grades of students taught in the same department by three not strongly dissimilar teachers. Curve number 1 shows four about equally spaced crests in the nineties, eighties, seventies and fifties, the first two just above the round numbers, 90 and 80, as though the instructor believed in giving good measure to all students whom he believed worthy of A's and B's. The conclusion that he had a soft heart proves false when one notices the sternness with which the weaker students have been marked below 70 and 60 when doubt seemed to exist as to their just grades. Curve number 2 surely shows an unsatisfactory half year of work. Either the instructor failed to reach his students because of weakness somewhere or he found the giving of fair grades too hard for him. The instructor who produced number 3 seemed to have but three marks—good, fair, bad—with emphasis upon the last. Really he had an inferior group to teach and there is no reflection upon his ability that a large percentage of his students failed. In fact the little crest just to the left of 60 shows how ready he was to pass any student whose case was somewhat doubtful.

The curves of Fig. 5 are for large groups containing from eleven to fifteen per cent. of all the freshmen marks. Both show high crests in most cases close to the multiples of ten. The instructor who produced number 1 seemed to be influenced by these multiples, but in so many cases gave marks of 89 and 79 that he can properly be charged with severity. Like many others however he *passed* many students with minimum grades in preference to *conditioning* them so that the curve has a crest near 60. Curve 2 is excellent, but would be much smoother were this instructor not so fond of multiples of ten. About eight per cent. of the grades are 80 and seven per cent. are 70. The way in which this curve rises pretty steadily from 61 to 70, 72 to 80, and 84 to 90, indicates that the teacher tended to grade too high, and it is probable that many students to whom 70 and 80 were given really deserved lower grades.

While it is noticeable that instructors in the same department rather often differ extremely in their marking methods, it happens that men in different departments sometimes produce similar curves. Thus in Fig. 6 are three graphs belonging to sections of almost the same size which are strikingly similar. The curves were grouped together because of the equal size of the classes. Then it was discovered that they were alike in shape. Number 1 is of a science group, and closely parallels number 2, which belongs to a technical group. Number 3, of a language group, while showing fondness for round numbers, resembles closely, at least from 60 to 85, number 2. All three ascend more or less steadily from both ends to 80 and 70, one crest lying to the left of 80, the other crest near 70, and all have marked troughs between these crests. The height of the first two curves between 50 and 60 is due largely to incompleted work, the curse of scientific and technical courses. The contrast at this end of the curves with the graph of the language section is therefore to be expected.

Three subjects, a science, a classical language, and a modern language, are represented in Fig. 7. The numbers of the freshmen in the sections were rather small. The subjects

were all semi-required. The curves are radically different, and show excellently peculiarities of the instructors. Graph 1 belongs to a class almost as large as the groups of Fig. 6, but shows the very high crests to be expected in the curve of a very small class. The instructor appears to be an easy marker, a man who has poor number sense too. While there are forty-one passing grades, he assigns only four of these grades, namely 70, 90, 91 and 92,

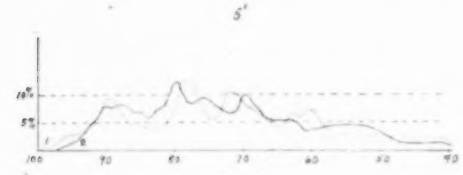
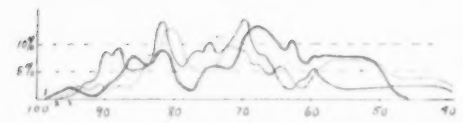


Fig. 5.



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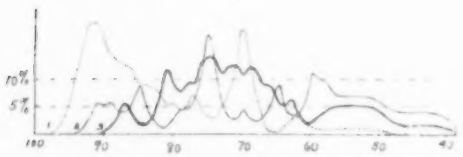

Fig. 7.

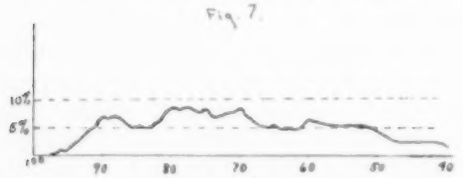

Fig. 8

to forty per cent. of his students. Evidently in his mind there were two distinct groups, the bad and the good. To the former he gave 70. The latter he divided again into groups, apparently appreciating in the neighborhood of 90 the difference between consecutive grades. The crest near 90 can be attributed partly to easy marking, and partly to the excellent quality of the students taking courses under him, these courses being traditionally difficult and exacting. Both crests may be due to a feeling of contempt for numbers on the part of the instructor. The curve numbered 2, like number 3, is wavy, because the class in each case was small. The slopes in number 2 are steep because half of the students were graded with multiples of 5. Save for the bunching of marks at or near these multiples of five (no mark missed such a grade by more than unity) the marks are well distributed. Number 3 for only seventeen students is almost perfect. Its roughness is due to the small size of the class. The way in which it rises from both ends to a single noticeable crest near 75 shows unusual number perception and balance. There is less surprise when it is added that the instructor is a scientist.

The prevailing tendencies and faults are shown in Fig. 8, where is drawn the curve of the whole faculty so far as the freshmen are concerned. Fortunately for preconceived ideas, its highest crest lies near 80 and its bulk between 70 and 80. The height between 50 and 60 may be excused by pointing out that we are not examining typical college students but only unseasoned freshmen. The rest of the graph seems faulty. The crest near 90 must be due to general "easiness." That at 60 shows that most of us slip some students over who have not done sufficient work. That at

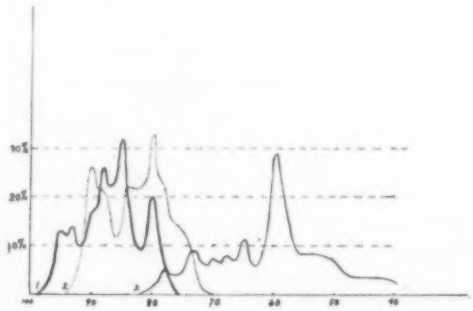

Fig. 9.

70 shows a dread of giving grades in the sixties. The general tendency to rise from right to left up to a multiple of ten with a sharp break beyond can mean only one thing. So many of us give 60, 70, 80 and 90 to students who should have lower grades, and high D's, C's and B's in preference to low that the system affects the whole college.

The series of curves I shall end with a set of absurd graphs representing the electives of the freshmen. All of these groups of students are small, although only one is smaller than those represented by the curves 2 and 3 of Fig. 7. The first represents the smallest group. It is steep and high, but not, after all, much worse than the others. Its chief interest lies in the fact that from this subject the head of the department is taking steps to bar freshmen. The lowest mark being 80, it hardly seems that the subject is too difficult for first-year students. The second graph is not for so small a group of students. Yet it climbs highest of all. Almost a fourth of the students received 80, another fourth 90, and half as many 84. No low marks were given, and on the whole it offers itself as an attractive course for hard-pressed athletes and society young women. Not only did the instructor make the course easy, but his number sense appeared uncertain. Only a few grades were used. The third graph shows what happens to unprepared freshmen when they are allowed to elect an advanced course really difficult, offered by an instructor who is not "easy." The curve lies far to the right, and is fairly smooth for a small class save in one place. Here at 60 it reaches a great height, probably because somebody had not the heart to give no credit to more than half of his freshmen. He soothed his conscience, however, by giving these lucky undeserving ones the *least possible grade* that would pass them.

This is the way men grade. Some are "easy"; some are severe. Some are afraid to give the deserved low mark; some refuse to consider a high one. Many bunch the grades. It is probable that few stop to criticize the marks they have given. And as a result the grading of many is unfair to the students, to the instructor, and to the faculty.

It is not my purpose to attempt to suggest what system should be followed in marking students. A set system is not necessary. In fact there would be great improvement if only every teacher would examine his grades not individually but collectively. It is improbable that more than two or three per cent. of the members of a class have done the same grade of work. Then if it appears that according to the marks five per cent. or more have made just 80, a moment of comparison will satisfy the instructor that the marks should be spread out to show the relative standings. The average of the eleven hundred marks given to freshmen was slightly over 70. A teacher can compare his students with the general run, his subject with the subjects in general, decide beforehand whether he desires to be a "snap" or a "brute" in the estimation of college men and women, and so fix for any particular group the desirable or fairest average. Then, after he has made out the term marks, he can compare the actual average with the theoretical. The comparison may give him a jolt, but should show him what he ought to do. Surely extreme averages indicate bad teaching and unpopularity. An instructor whose average is low is feared and disliked by the students, and his classes are undersized. On the other hand, he whose average is high has his work cheapened in the eyes of the students. His classes are large, but too many of his students elect his courses for credit only. While fair marking is no substitute for poor teaching, poor marking may interfere with good teaching. Any teacher can therefore afford to see to it that his marking system is just and *under his control.*

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SOCIETIES AND MEETINGS

DETROIT MEETING OF THE DEPARTMENT OF SUPERINTENDENCE

The Character and Extent of Desirable Flexibility as to Courses of Instruction and Training for Youths of Twelve to Fourteen Years of Age: COMMISSIONER DAVID SNEDDEN, of Massachusetts.

The following conclusions as to flexibility in the junior high school were urged: (1) The reorganization of education designed for young people from 12 to 14 is the most important contemporary movement in the field of general education. (2) It is right and proper that this period should continue to be reserved for general education (cultural), physical and social

education, and that no specific vocational education should be offered in it; but (*a*) Vocational guidance, based on communicated information (books, lectures, individual conferences), observation of men at work in vocations, and participation in simple processes derived from industry, all designed as phases of general education, is acceptable and desirable; and (*b*) Differentiated courses in practical arts, partly as a means of enabling each pupil to find himself, and partly as a means of acquiring valuable experience in reception and expression or execution (not necessarily contributing to vocational power however) are desirable. (3) Central schools should, as far as practicable, be organized for all pupils from twelve to fourteen, to include not only the normal in grade, but the retarded as well. As far as practical retarded pupils should take same studies as pupils of normal grade; and where, in the more technical studies they can not do this, special courses containing work especially adapted to their needs should be provided. (4) Whenever it seems that a new study can profitably be offered to a substantial group of pupils of these ages, it should be introduced. (5) It is to be expected that many more studies or subject courses will be offered than can be taken by any one pupil; and hence will arise the necessity of election of courses or subjects. (6) In providing for the selection of individual programs, prescribed studies should be reduced to the minimum, and large freedom allowed to the pupil and his parents to elect, subject to full advice, the subject courses to be taken by the pupil. Choices made by pupils may frequently be unwise, but rarely more unwise than the courses prescribed arbitrarily by the authorities.

Strict Enforcement of Compulsory Education Laws: Edwin B. Shallow, associate city superintendent of schools, New York.

The city of New York has a bureau which combines the work of taking a school census with that of enforcing the compulsory education law. Before this bureau was formed it was difficult to find out much about the quantity or quality of an attendance officer's work.

A strict enforcement of the compulsory education law has made a marked difference in the attendance in schools in New York in recent years. Within the past twelve years public-school attendance on the average register has increased from 86 per cent. to 90 per cent. This 4 per cent. would mean that on present registers there are 34,000 more children forced to attend school. The most notable example of a city which is fairly successful in accounting for all the children of school age, within its limits, is the city of London. There the compulsory school age is from five to fourteen years and there the teachers are relieved from the anxiety of looking after absentees. The Bureau of School Attendance inspects the registers of every school to see who is absent. The teacher has only to note the fact of absence. Within the six years, 1905–10, there were on the rolls of London schools, from 97.3 per cent. to 97.5 per cent. of all the children of compulsory school age. Under this close supervision the attendance showed a steady gain year by year until the gain was nearly 10 per cent. greater in public schools with a corresponding gain in private and parochial schools. In most American cities hitherto, the work of attendance officers has been largely regarded as a laughing stock. In many places "small fry" politicians have sought the job of attendance officer knowing that there was a salary attached and that there was nothing very serious about the work. A few years ago New York had 9,300 school children for each attendance officer. Boston had 5,800 for each officer. Philadelphia had 4,700 for each officer. Dublin had 2,600 for each officer. Glasgow had 2,100 and London had 2,000 children for each officer. In keeping with the careless way in which American school boards look upon the matter of keeping children of compulsory school age in school, is the attitude of magistrates in enforcing parental responsibility. Much retardation of pupils in their studies is due to unnecessary and preventable absence. Children who have to take a term's work over again are a loss to the taxpayer. Money expended in keeping such children in school is more than offset in a saving of teachers' salaries and school supplies.